DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-029891
Date Inspected: 29-Jul-2013

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name: Salvador Merino

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS OBG

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At the bikepath emergency exit panel point 122.5 to PP123, ABF welder Rick Clayborn was observed continuing to perform weld pick up on the Complete Joint Penetration groove weld of the ½" thick plate x 76" long closure plate to the bikepath. The welder utilized the Shielded Metal Arc Welding (SMAW) with the 1/8" diameter E7018H4R electrode. The welder was noted performing the weld pick up of the joint where minor porosities and underfill were noted. The welder was observed removing the minor porosity, by grinding, prior welding. After the completion of the weld pick up, the welder performed the grinding of the cover pass to a flush finish. During the welding, ABF QC Salvador Merino was on site monitoring the workmanship and the welding parameters. At the end of the shift, CJP welding on the closure plate to the bikepath was completed and the weld cover was flush ground. ABF QC Salvador Merino performed the Magnetic Particle Testing (MT) on the weld cover with no significant indications noted.

At the Pier 7 warehouse, this QA randomly observed ABF welder Gue Wu Chen perform Partial Joint Penetration (PJP)welding of the 290 x 250 x 30mm thick plate and the fillet welding of the 415 x 145 x 16 thick plate to the hinge "A" cover plate. The PJP and fillet welding of the plates were performed per CCO #217 S2 and RFI #3393. The welder was observed welding the PJP and the 6mm fillet weld using Shielded Metal Arc Welding (SMAW) process using the 3.2mm diameter E7018H4R electrode as per the Welding Procedure Specification (WPS) ABF-WPS-D15-1140. The ABF QC Inspector, Salvador Merino, was noted monitoring the workmanship and the

welding parameters. After the completion of the PJP and fillet welding on north and south sides of the cover plate, ABF QC Salvador Merino performed visual inspection and noted acceptable results. This QA performed verification on the welded joints and noted same results. ABF QC Salvador Merino performed Magnetic Particle Testing (MT) on the welded joints with no significant indications noted. This QA also performed random verification and noted same results.

At E2 modification, CCO 318 west bound south side, ABF personnel cut and removed nine (9) welded ¾" diameter x 6" long Nelson studs at vertical embed plate for the shear key retrofit. The removed studs were located at the top row of the welded studs and were not replaced. Since the removal has no prior approval of the Engineer, an Incident Report was generated.

FW Spencer:

At various panel points, this QA randomly observed FW Spencer qualified welders Tim Esquivel, Barry Mullaney and welder Salvador Gomez continuing to perform Complete Joint Penetration (CJP) using the Shielded Metal Arc Welding (SMAW) process to weld the root pass to cover pass on the 2.5" diameter domestic water line and the 4" diameter compressed air line butt joints. The welders were noted welding the root pass with 3/32" diameter E6010 electrode and followed by the fill pass to cover pass using 3/32" diameter E7018H4R electrode as per the FW Spencer WPS 1-12-1. The welders were noted preheating and removing the moisture of the joint using a portable propylene gas torch prior welding. During welding, ABF QC Fred Michels was noted monitoring the parameters of the welders. At the end of the FW Spencer shift, CJP welding on 2.5" and 4.0" diameter pipe joints at various locations were completed. Welder Tim Esquivel completed the fillet welding all around the channel C5 x 9 on top of welded plate of the deck plate. The following pipe welds were completed on this date and appeared to be in compliance with the contract documents:

Barry Mullaney:

1. 64/4/118/NW Compressed Air service line
2. 65/4/118/NW Compressed Air service line
3. 2/DW1/118/NW Domestic water 1" branch socket weld
4. 3/DW1/118/NW Domestic water 1" branch socket weld

Tim Esquivel:

5. 86/2.5/121/BE Domestic water line
6. 87/2.5/121/BE Domestic water line

Salvador Gomez:

7. 48/4/118/SW Compressed Air service line
8. 49/4/118/SW Compressed Air service line
9. 48/2.5/118/SW Domestic water line
10. 49/2.5/118/SW Domestic water line

WELDING INSPECTION REPORT

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Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Gary Thomas 916-764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Reyes,Danny	QA Reviewer